



STATE OF MARYLAND

DMMH

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December 3, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:47 Reporting for the week ending 11/27/10 (MMWR Week #47)

CURRENT HOMELAND SECURITY THREAT LEVELS

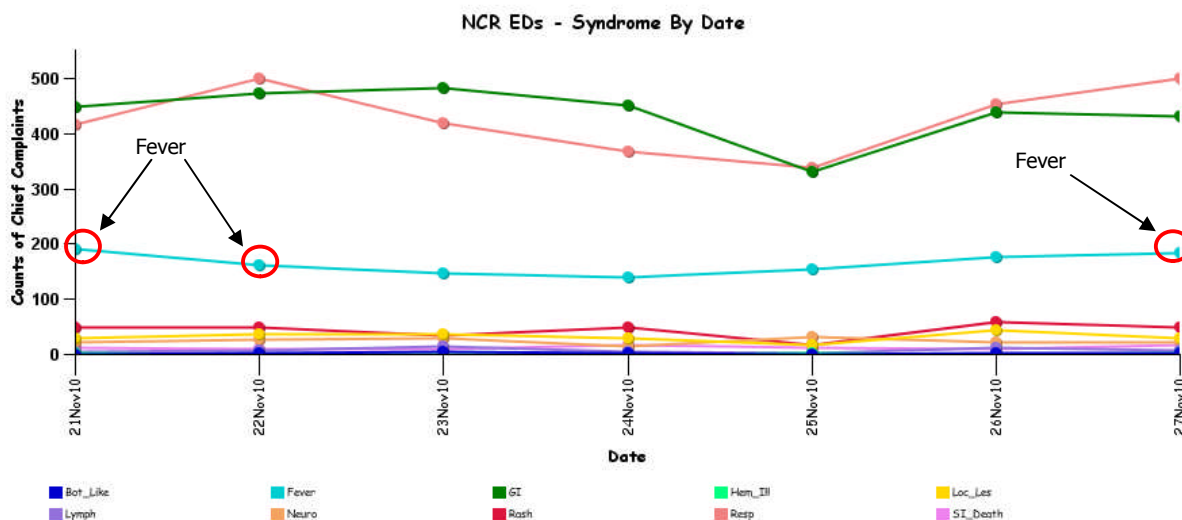
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

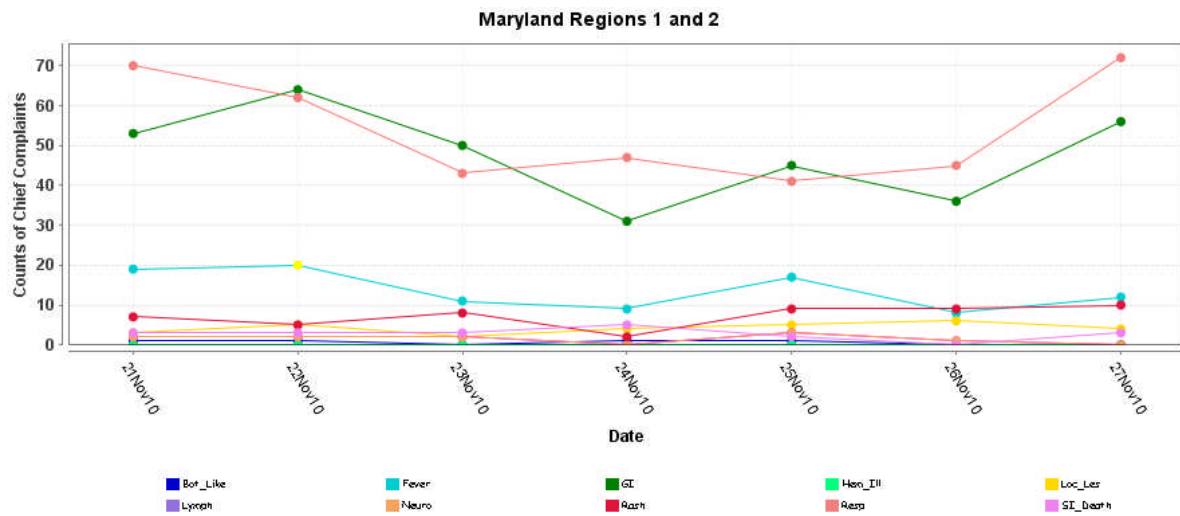
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

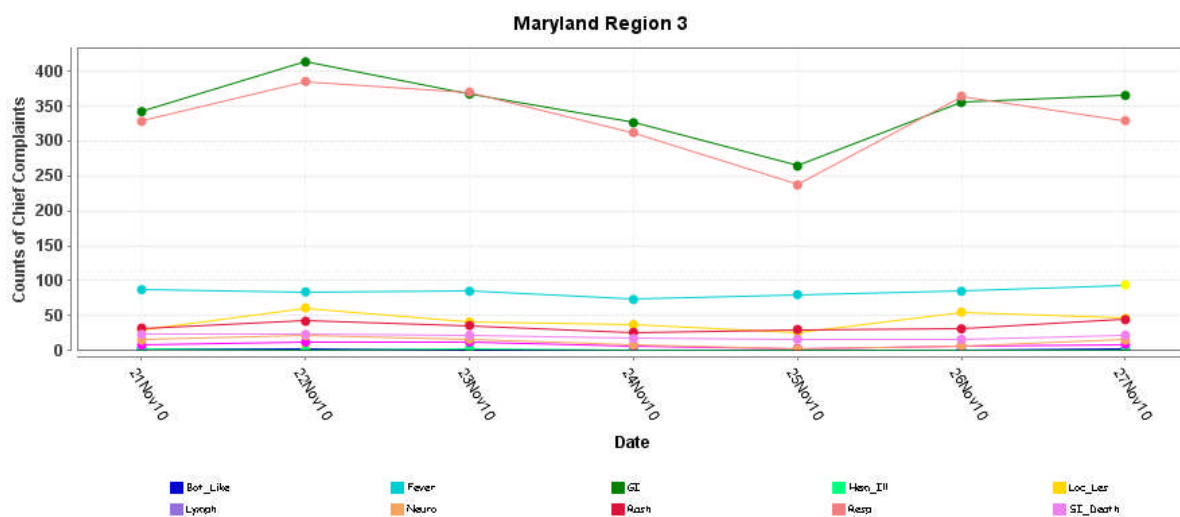


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

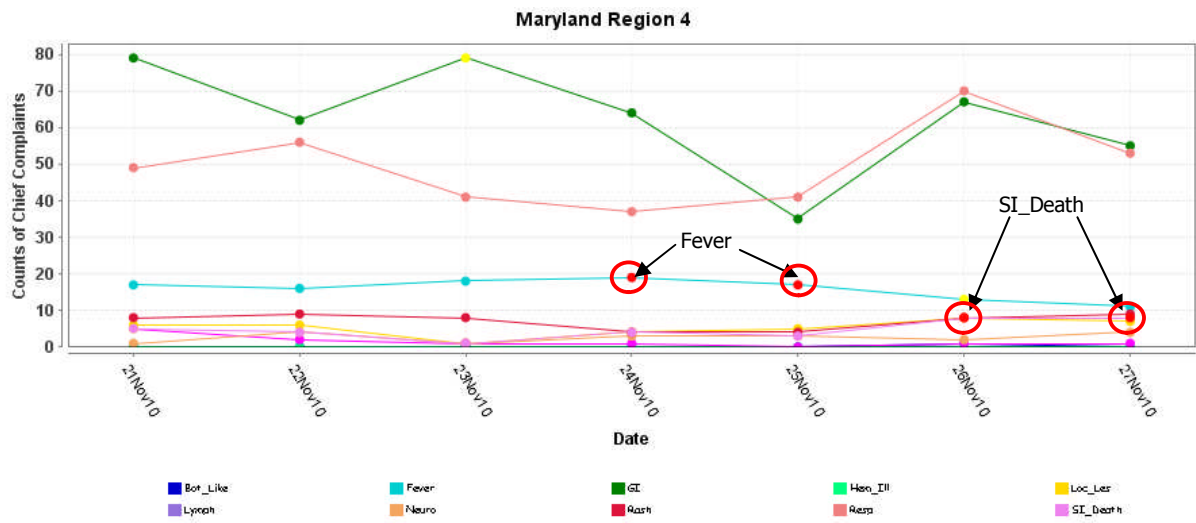
MARYLAND ESSENCE:



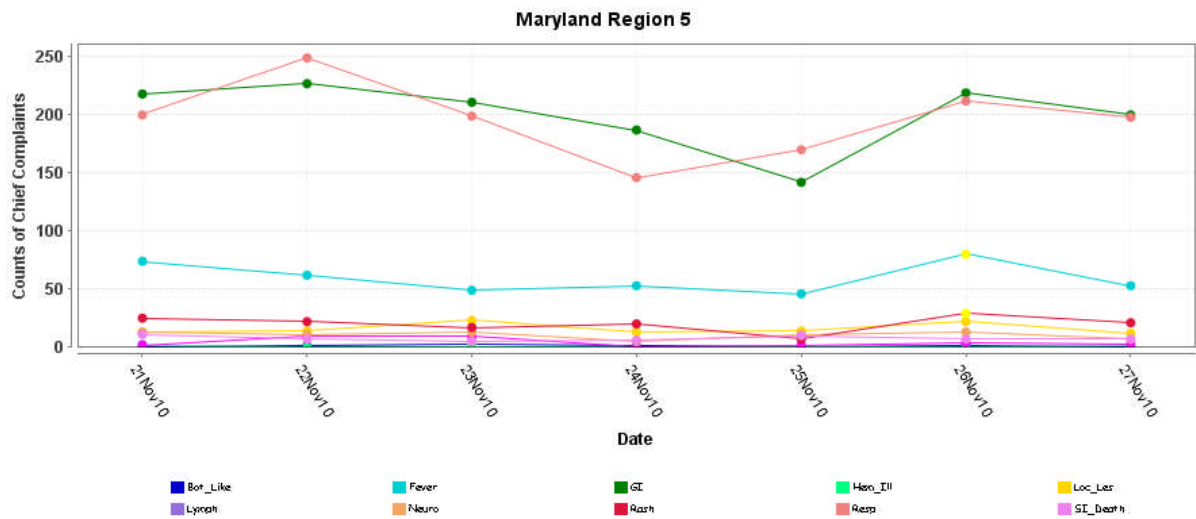
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

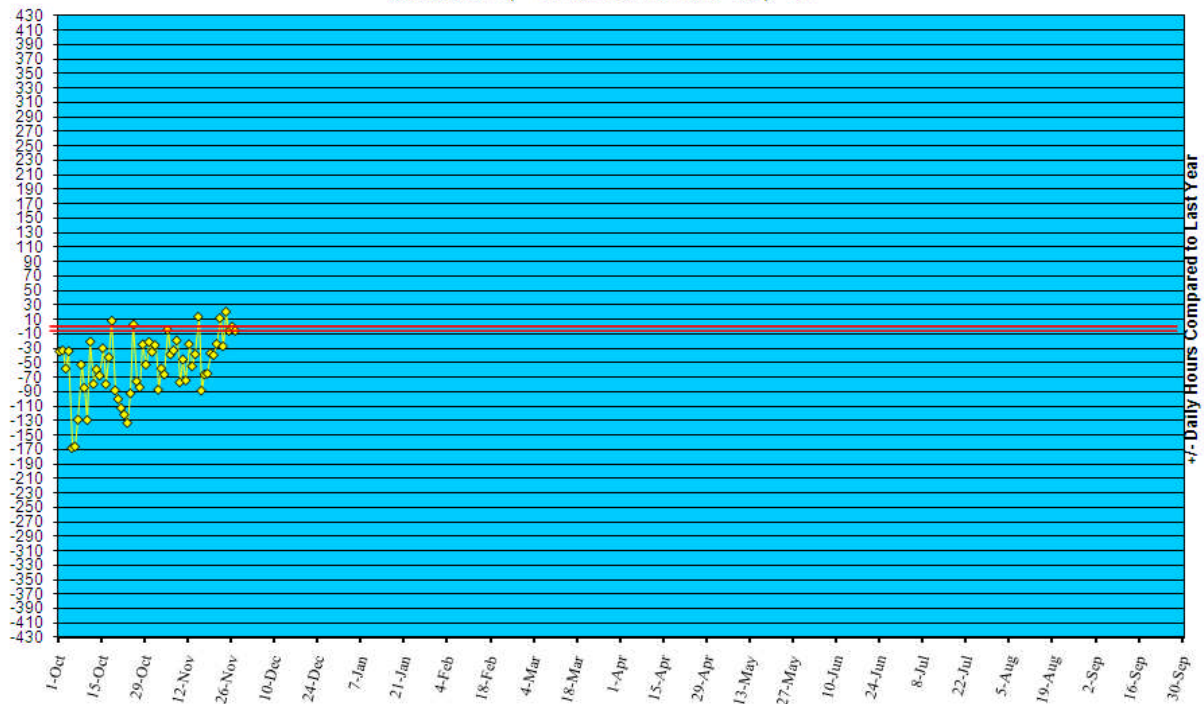


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to November 27, '10



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

| Meningitis: | <u>Aseptic</u> | <u>Meningococcal</u> |
|--|-----------------------|-----------------------------|
| New cases (November 21 – November 27): | 5 | 0 |
| Prior week (November 14 – November 20): | 17 | 0 |
| Week#47, 2009 (November 22 – November 28, 2009): | 8 | 0 |

3 outbreaks were reported to DHMH during MMWR Week 47 (November 21 – November 27, 2010):

2 Gastroenteritis outbreaks:

- 1 outbreak of E. COLI O157 in a Daycare
- 1 outbreak of GASTROENTERITIS in a Nursing Home

1 Respiratory Illness outbreak:

- 1 outbreak of LEGIONNAIRE'S DISEASE in a Nursing Home

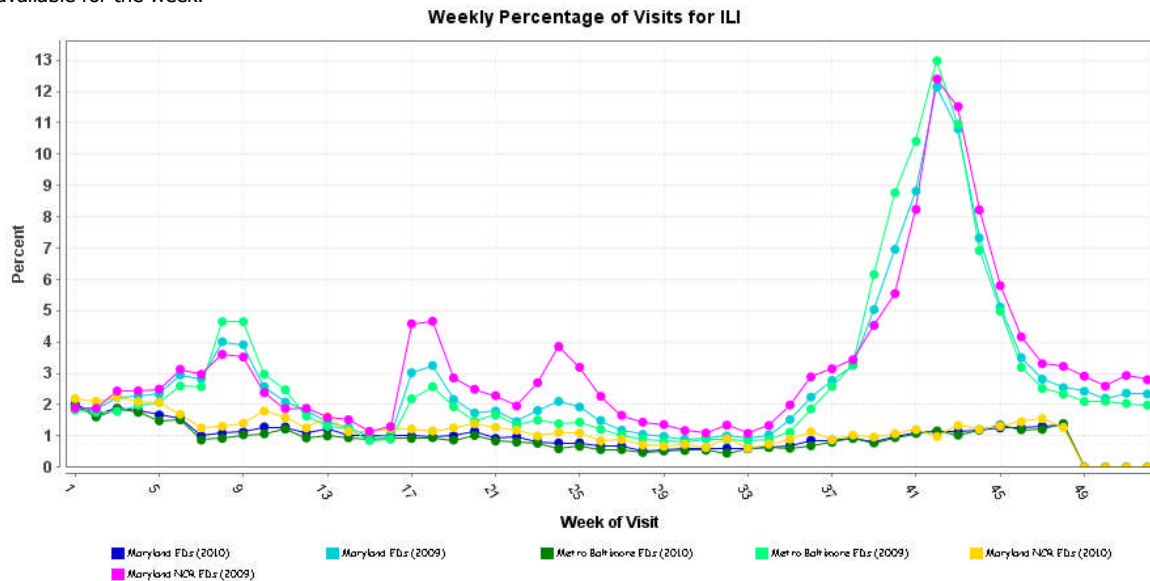
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was sporadic with minimal intensity for Week 47.

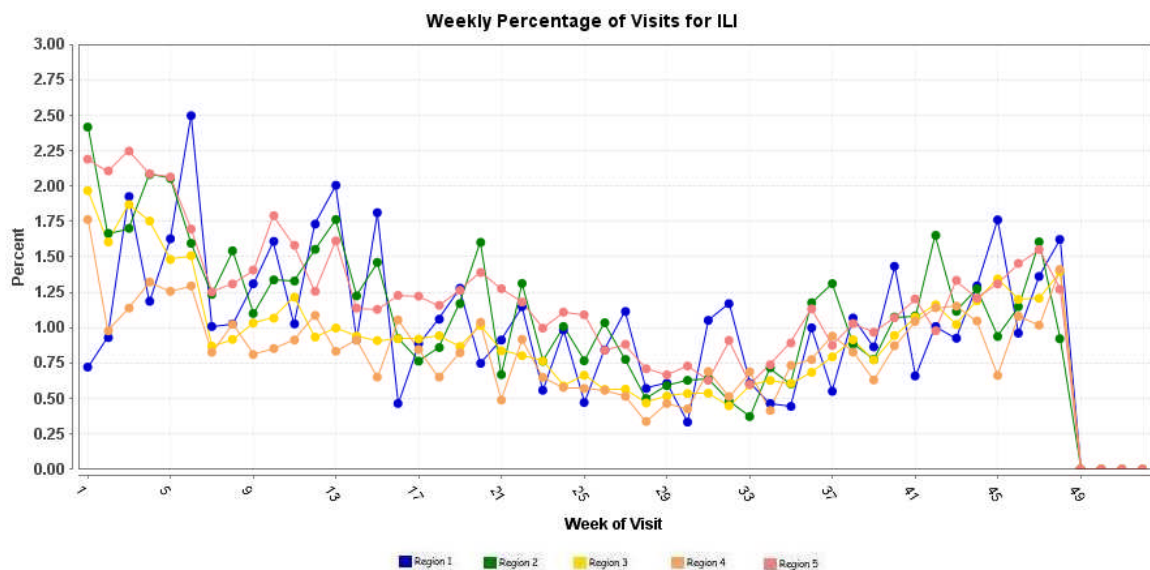
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



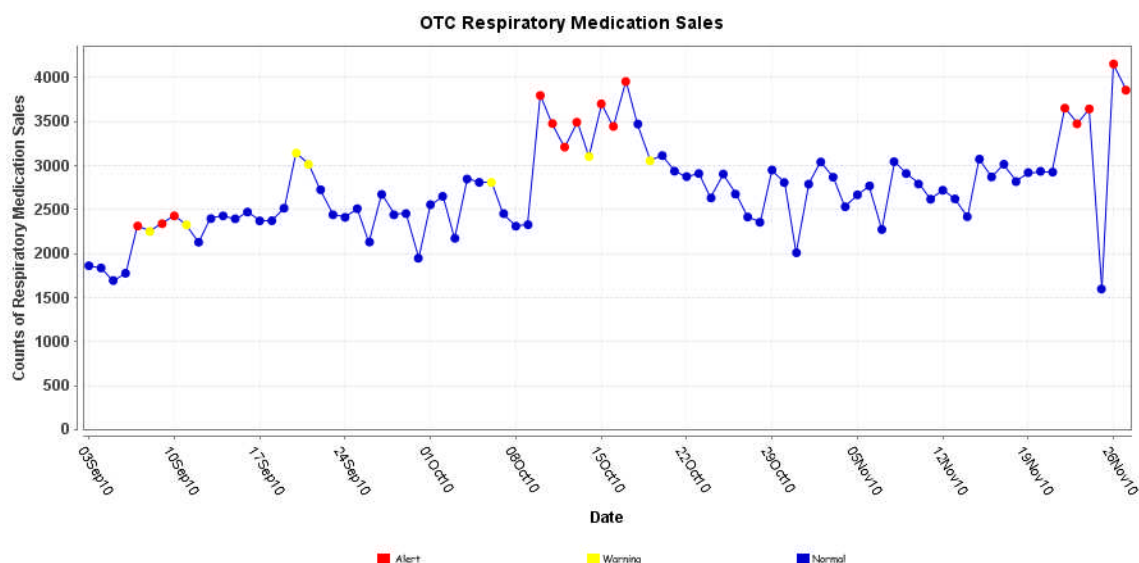
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of November 19, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 508, of which 302 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, LPNAI H5N2, TURKEY (CANADA): 26 November 2010, A Manitoba farm has been quarantined by the Canadian Food Inspection Agency [CFIA] after several turkeys tested positive for a strain of bird flu. Located north of Winnipeg in the rural municipality of Rockwood, the farm houses roughly 8,200 birds, all of which will need to be destroyed to prevent the spread of the flu. Provincial officials stressed Wednesday [24 Nov 2010] that there is no evidence this is the potentially dangerous Asian H5N1 strain. "We have confirmed that it's H5," said Joel Kettner, Manitoba's chief public health officer, who noted further testing is needed to determine the exact strain. Kettner said the risk of impact on humans is very low at this time. There are no human illnesses associated with the infected poultry or linked to the farm, he said. Manitoba's chief veterinary officer, Wayne Lees, said there is no need to worry about infected meat getting into the food supply, as the farm is an egg-producing operation whose eggs are shipped to turkey growers. Turkeys from the farm are not sold as food. The outbreak was discovered after the egg production of several turkeys decreased -- a sign of influenza. The birds were tested, and the flu was detected. Results were determined Tuesday [24 Nov 2010]. Officials said it's highly unlikely that the strain is the deadly H5N1, as it has never appeared in North America, but preventative action is being taken nonetheless. "We're being cautious, because we're in an atmosphere of change and we can't predict what this ... strain will be," Kettner said. "We have to complete the testing to establish that this isn't the 1st (H5N1 case)." The CFIA will now be tracing eggs from the farm, and will attempt to find where the outbreak originated -- a difficult task. Workers at the turkey farm are being offered anti-viral medication as a precaution. There have been 302 reported H5N1 deaths around the world since 2003 and 20 deaths out of 40 reported cases so far this year [2010], according to the World Health Organization.

AVIAN INFLUENZA, HUMAN (HONG KONG): 22 November 2010, The Centre for Health Protection (CHP) confirmed a case of human influenza A (H5N1) infection on 17 Nov 2010 affecting a 59 year old woman living in Tuen Mun. She had enjoyed good health previously. She presented with a runny nose since 2 Nov 2010, and fever and cough with blood streaked sputum since 5 Nov 2010. She consulted doctors, and medications were given. Her symptoms persisted, and she attended the Accident and Emergency Department of Tuen Mun Hospital (TMH) on 12 Nov 2010, and chest X-ray (CXR) showed left middle zone haziness. She was given

a course of Augmentin [amoxicillin plus clavulanic acid]. She had increasing haemoptysis and persistent fever and was admitted to a general ward in TMH on 14 Nov 2010. Her condition deteriorated, and CXR taken on 16 Nov 2010 showed consolidation of her entire left lung field and right lower zone haziness. She was then transferred to the intensive care unit for close monitoring. She was treated with oseltamivir [Tamiflu] and was given 100 per cent oxygen but did not require ventilatory support. She is currently in a serious condition in Princess Margaret Hospital. Her nasopharyngeal aspirate was tested positive for H5 influenza A virus by PCR [polymerase chain reaction] on 17 Nov 2010. She travelled to Mainland China (Shanghai, Nanjing and Hangzhou) with her husband and daughter from 23 Oct 2010 to 1 Nov 2010. She had history of visiting a wet market in Mainland China during the incubation period but had no history of direct contact with poultry or birds. She came back to Hong Kong on 1 Nov 2010. The source of infection is being investigated. Her 60 year old husband had a history of running nose and productive cough but has recovered. Her close contacts have been put under quarantine. Chemoprophylaxis was offered to close contacts, and tests on respiratory specimens were negative. In response to the confirmation of this case, the government has raised the influenza response level from "Alert" Response Level to "Serious" Response Level under the Framework of Government's Preparedness Plan for Influenza Pandemic on the same day. CHP has also enhanced surveillance for avian influenza, apart from the existing statutory notification system for suspected Influenza A (H5, H7, and H9) cases. Doctors are requested to refer patients fulfilling the following criteria to the nearest accident and emergency department under the Hospital Authority for further management:

- a person presented with influenza-like illness (fever over 38 C and either sore throat or cough);
- and history of visiting wet market or contacting poultry in Shanghai, Nanjing, or Hangzhou within the incubation period (that is, 7 days before onset of symptoms)

This was the 1st confirmed human influenza A (H5N1) infection recorded in Hong Kong since 2003. Previously, in 1997 and 2003, Hong Kong recorded 18 and 2 cases of human infections of H5N1 avian influenza, respectively. They were 10 males and 10 females with ages ranging from 1 to 60 years. Ten were children aged below 12 years. Seven of the cases died, and the others recovered. The cases in 1997 coincided with an outbreak of high pathogenic avian influenza caused by a virtually identical virus in poultry farms and live markets, and the outbreak stopped after a mass culling operation. The 2 cases in 2003 were imported cases affecting a 33 year old man and his 9 year old son who had travelled to Mainland China.

NATIONAL DISEASE REPORTS

There are no national disease reports for MMWR Week 47 (November 21 – November 27, 2010)

INTERNATIONAL DISEASE REPORTS

CHOLERA (HAITI): 27 November 2010, The death toll from Haiti's cholera epidemic rose to 1603 on Thu 25 Nov 2010, up from 1415 just 2 days previously, according to the health ministry. The outbreak has infected 69 776 people since it was 1st detected in mid-October 2010, of whom 29 871 have been hospitalized, it said. To date, 146 have died of the virulent diarrheal disease in the destroyed capital of Port-au-Prince, where more than a million people have been living in sprawling tent cities since a January 2010 earthquake. Officials fear the disease could spread quickly there because residents have little access to proper sanitation. There have been isolated cases beyond Haiti's borders, 4 in the neighboring Dominican Republic and 1 in Miami, Florida. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

HANTAVIRUS (CHILE): 24 November 2010, The case of the young person who, this past weekend, died in the Collipulli Hospital while being moved urgently to the Temuco Regional Hospital, corresponds to a new case of [a] suspected hantavirus [infection]. This was confirmed by Loreto Uribe, in charge of the Malleco Provincial SERMI [Regional Ministerial Secretariat] Health Office. She said that she could not confirm the cause of the fatality while the corresponding [laboratory] analyses were not [yet] done. "The woman who died is just suspected of having [a] hantavirus [infection]; some samples were taken after her death and sent to the Public Health Institute (ISP) in Santiago for confirmation," she said. The ill-fated 23 year old woman lived with her 2 little children in the San Andres rural area, near Collipulli. Meanwhile, in recent hours another case with similar characteristics was reported in the Niblinto rural area, also in Collipulli. This relates to a 51 year old man. "This patient went to the Temuco Hospital, is in stable condition and also suspected of having [a] hantavirus [infection], and under the same conditions, samples were sent to the ISP for subsequent testing," said the SEREMI Health representative. It is worth recalling that to date, there exists just one confirmed fatal case registered in the Tranaman area, in the Puren community, where a 46 year old worker died. Also, some 2-3 suspected cases in the province were registered, which were discarded [as hantavirus infections]. One of the main recommendations to prevent the disease [and discourage the presence of the long-tailed pygmy rice rat that is the reservoir of Andes hantavirus - Mod.TY] in rural areas is to store firewood 30 cm [12 in] or more above ground level and at a distance of 30 m [1170 ft] from the house and maintain the areas around houses, urban spaces and cultivated areas free of weeds and low-level vegetation. Also, it is advised that before entering closed places, sheds or unoccupied cabins, these [places] should be ventilated for several hours and the use of masks is recommended since it has been detected that the inhalation of rodent excreta in closed places is one of the main risk factors. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS, FATAL (MICRONESIA): 21 November 2010, A total of 6 people died and more than 90 fell ill after eating endangered turtles in Micronesia, the Pacific nation's government said Friday [12 Nov 2010]. The deaths, which included 4 children, occurred after a feast on the island of Murilo [Chuuk State] in mid-October [2010] where the rare hawksbill turtle was consumed, the Federated States of Micronesia's public information office said. It said government health officials and the World Health Organization found the deaths were a result of chelonitoxism, a type of poisoning caused by biotoxins in turtle flesh for which there is no known antidote. Hawksbill turtles were a species known to cause chelonitoxism and children were particularly vulnerable to the condition, the government said in a statement. It said health authorities had recommended a complete ban on

eating turtles and their eggs as a result of the deaths. "Though this incident has come to an end, future incidents are certain to occur unless action is taken to alter turtle-eating behavior," the statement said. The hawksbill turtle was the original source of tortoiseshell and is protected under the Convention on International Trade in Endangered Species (CITES). (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmd.state.md.us/>

Maryland's Resident Influenza Tracking System: <http://dhmd.state.md.us/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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